

Date: Thursday, 9/21/2006 3:24:31 PM  
 User: Kim Johnston

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: STEM
Job Number	: 28697		
Estimate Number	: 10394		
P.O. Number	: N/A	Part Number	: D29681
This Issue	: 9/21/2006 S.O. No. : N/A	Drawing Number	: D2968
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : MACHINED PARTS	Drawing Revision	: B1
Previous Run	: 28267A	Material	: N/A
Written By	: <u>[Signature]</u>	Due Date	: 10/15/2006
Checked & Approved By	: <u>[Signature]</u>	Qty:	32
Comment	: Est:C 03.04.11 Reformat; Incorporated D2968-1/-5 KJ/RF	Um:	Each

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M4130NR0750	4130 steel rod .750"
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Comment: Qty.: 0.4550 f(s)/Unit Total : 13.6490 f(s)

Material: AISI 4130 Ø 3/4 " Bar

(M4130N-R0.750)

Batch: M101728 36"

Identify AS D2968-1

100559

J.E

06109/25

2.0	HARDINGE	HARDINGE CNC LATHE SMALL
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Comment: HARDINGE CNC LATHE SMALL

1-Turn Blank as per Folio FA047 and Dwg D2968

2-Deburr, no sharp edges

J.E

06109/25

32

3.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

J.E

06109/25

32

4.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1

1- Machine as per Folio FA047 and Dwg D2968

2- Deburr

J.E 0610/15

32

5.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

J.E 0610/15

32

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ Date: 06/10/18

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Thursday, 9/21/2006 3:24:31 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STEM

Job Number: 28697

Part Number: D29681

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

En 06/10/16

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

ST 396

Boo/10/18 (32)

8.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Boo/10/18 (32)

Job Completion



U 06/10/18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	28697
Description: Stem		Part Number:	D2968-1
Inspection Dwg: D2968	Rev: B1	Page 1 of 1	

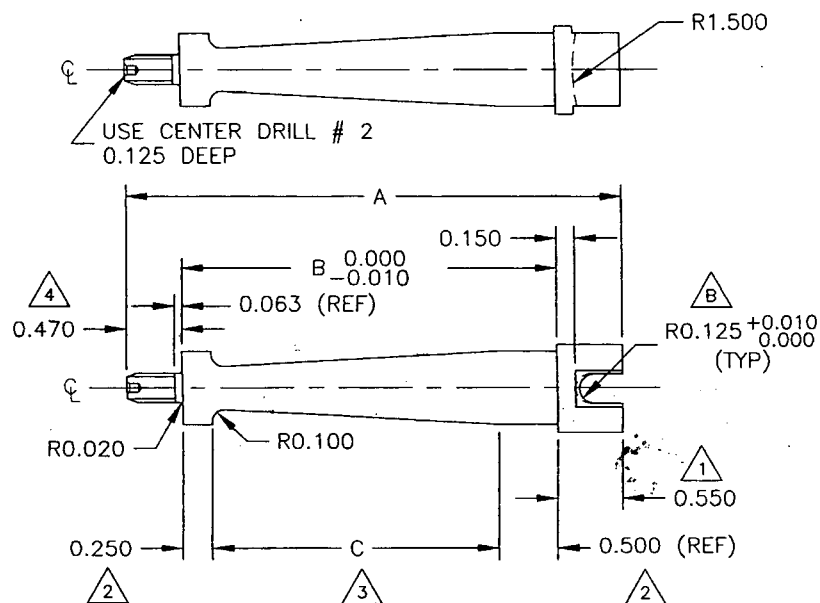
### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
5.040	+/-0.010	5.046	✓			
4.020	+0.000/-0.010	4.018	✓			
3.270	+/-0.010	3.277	✓			
0.470	+/-0.010	0.475	✓			
0.250	+/-0.010	0.254	✓			
0.550	+/-0.010	0.552	✓			
Ø0.750	+/-0.010	0.749	✓			
Ø0.625	+/-0.010	0.624	✓			
Ø0.363	+/-0.010	0.364	✓			
0.250	+0.010/-0.000	0.250	—			
0.625	+/-0.010	0.623	✓			
0.150	+/-0.010	0.157	—			
0.250	+0.010/-0.000	0.250	—			
0.625	+/-0.010	0.625	—			
0.150	+/-0.010	0.157	—			
1/4-28 Major dia	0.243 - 0.249	0.248	✓			
MOW	0.261 - 0.267	0.266	✓			

Measured by: J. G. / ml	Audited by: Ep	Prototype Approval:	N/A
Date: 06/09/25	Date: 06/10/25	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.02.25	New Issue P/O D2968-041	KJ/RF	
B	05.05.26	Dimensions added	KJ/JLM	



PART NUMBER	A	B	C
D2968-1	5.040	4.020	3.270
D2968-3	4.200	3.180	2.430

D2968-1/-3 STEM

D2968-1 AND D2968-3 STEM:

MATERIAL: AISI 4130

△ 0.750 O.D.

△ 0.625 O.D.

△ MACHINE UNIFORM TAPER FROM 0.363 O.D. TO 0.625 O.D.

△ 1/4-28 UNF THREAD WITH 0.063 GRIP MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS UNLESS OTHERWISE INDICATED

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

D2968-5 RING:

MATERIAL AISI 4130

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE

ENGINEERING

REL. ENTS

SS & P COPY

NO. 286917

WORK IN PROGRESS

NO. 286917

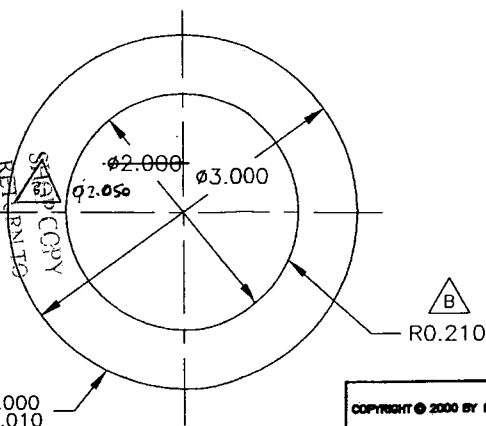
NO. 286917

NO. 286917

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NO. 286917

NO. 286917

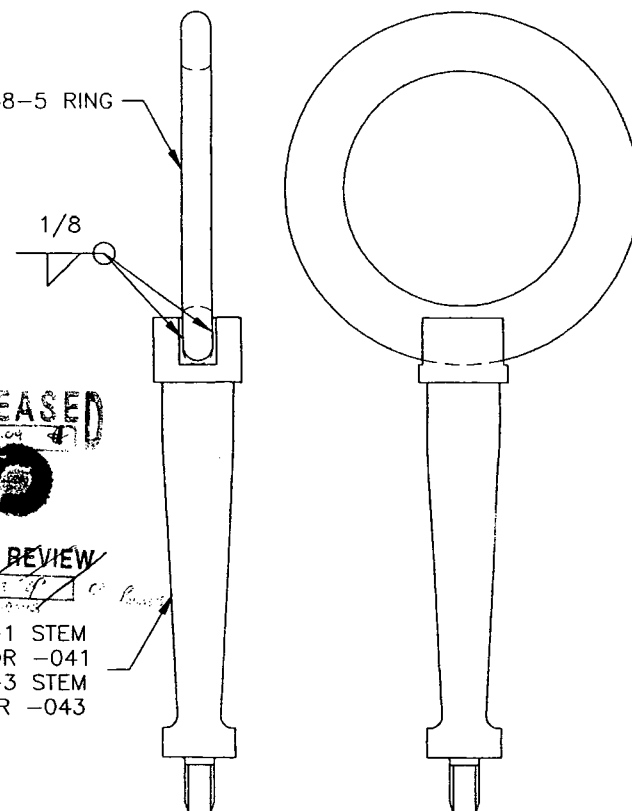


D2968-5 RING

RELEASED

UNDER REVIEW

USE 2968-1 STEM FOR -041  
USE 2968-3 STEM FOR -043



D2968-041 AND D2968-043 TOW RING:

WELD PER QSI 004 ON ALL EDGES BETWEEN STEM AND RING  
HEAT TREAT TO MIN ULTIMATE TENSILE STRENGTH OF 125 KSI

FINISH: CAD PLATE ENTIRE ASSEMBLY PER

QQ-P-416F CLASS I TYPE II

POWDER COAT WHITE (REF 4.3.5.2) PER DART

QSI 005 4.3 (EXCEPT THREADS)

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

B	00.05.31	R0.125 AND R0.210 WERE 0.060 x 45°
A	00.03.07	NEW ISSUE
DESIGN	RF	DART
CHECKED	RF	DART
DATE	00.05.31	TOW RING

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DART AEROSPACE LTD.  
HARRISBURG, ONTARIO, CANADA

DRAWING NO. D2968

REV. B

SHEET 1 OF 1

SCALE

1:1